## Claims

1. A method (750) for processing data packets in a gateway element, said method comprising the steps of:
- comparing (751) a data packet to screening information comprising a set of rules, and
- processing (755) a data packet according to a rule belonging to the set of rules, the header information of said data packet matching the header information of said rule, **characterized** in that
- said screening information is hierarchically structured so that it comprises a first rule, which specifies first header information, and a subset of rules relating to said first rule, and in that
- in said step of comparing a data packet, said data packet is compared (754, 756) to said subset of rules only if the header information of the data packet matches the header information of the first rule.

2. A method according to claim 1, **characterized** in that
- said subset of rules comprises a second rule, which specifies second header information, and a second subset of rules, said second subset of rules relating to said second rule, and in that
- in said step of comparing a data packet, said data packet is compared to said second subset of rules only, if the header information or the data packet matches the header information of the second rule.

3. A method according to claim 1, **characterized** in that
- said set of rules is an ordered sequence of rules,
- said subset of rules is an ordered sub-sequence of said ordered sequence of rules, and
- in said step of comparing a data packet, said data packet is compared to the rules in the order defined by the ordered sequence.

4. A method according to claim 1, **characterized** in that for said subset of rules, an entity which is authorized to modify said subset, is specified.

5. A method according to claim 1, **characterized** in that at least one rule belonging to said subset of rules comprises a generic information portion, said generic information portion to be replaced with second information before a data packet is compared to said at least one rule.

6. A method according to claim 1, **characterized** in that said screening information comprises a first part, which is modifiable by an entity authorized to configure said gateway element, and a second part, which is modifiable by an entity specifically authorized to modify said second part.

7. A gateway element (80) comprising
- means (801) for storing screening information and
- means (802) for processing data packets, said processing involving comparison of a data packet header to header information specified in said screening information,
**characterized** in that said means (802) for processing data packets are arranged to compare header information of a data packet to screening information comprising a first rule, which specifies first header information, and a subset of rules relating to said first rule, and arranged to compare a data packet to said subset of rules only if the header information of the data packet matches the header information of the first rule.

8. A gateway element according to claim 7, **characterized** in that it further comprises
- means (803) for detecting generic information portions in said screening information,
- means (803) for receiving second information, and
- means (803) for replacing the generic information portion in said screening information with said second information.

9. A gateway element according to claim 8, **characterized** in that it further comprises
- means (804) for preventing modification of at least one rule belonging said information.

10. A gateway element according to claim 7, **characterized** in that it further comprises
- means (805) for receiving at least part of said screening information from a database entity.

11. A gateway element according to claim 10, **characterized** in that it further comprises
- means (806) for fetching at least part of said screening information from said database entity, said means for fetching being arranged to initiate fetching as part of configuration of said gateway element.

12. An arrangement (85) comprising at least one gateway element (80) and a database entity (81), said at least one gateway element comprising
- means (801) for storing information for screening data packets and
- means (802) for processing data packets, said processing involving comparison of a data packet header to header information specified in said screening information, **characterized** in that
- said database entity comprises means (82) for providing information for screening data packets,
- said at least one gateway element further comprises means (805) for receiving at least part of said information for screening data packets from said database entity, and said means (802) for processing data packets are arranged to compare header information of a data packet to screening information comprising a first rule, which specifies first header information, and a subset of rules relating to said first rule, and arranged to compare a data packet to said subset of rules only if the header information of the data packet matches the header information of the first rule.

13. A computer program comprising program code for performing all the steps of Claim 1 when said program is run on a computer.

14. A computer program product comprising program code means stored on a computer readable medium for performing the method of Claim 1 when said program product is run on a computer.

15. A data structure (40, 60, 64, 66) comprising screening information, **characterized** in that said screening information is hierarchically structured so that it comprises a first rule (401), which specifies first header information, and a subset of rules (402, 403) relating to said first rule, said first header information being common to said rules belonging to said subset of rules.

16. A data structure (42) according to claim 15, **characterized** in that said subset of rules comprises a second rule (421), which specifies second header information, and a second subset of rules (422, 423), said second subset of rules relating to said second rule, said second header information being common to said rules belonging to said second subset of rules.